

---

## Information Competence Development on the Basis of Professional-Oriented Video Materials

---

Ramil R. Khairutdinov<sup>1</sup>, Irina S. Nalimova<sup>2</sup>, Golnar I. Sosnovskaya<sup>3</sup>

**Abstract:**

*The article deals with the challenges of the development of university students' information competence in the process of foreign language teaching. It discusses the potential of foreign languages in the professional-oriented training.*

*Interrelation of critical thinking, communication skills and the level of information competence development is observed. The dynamics of the indicators of its development is investigated.*

*The results of the experiment give reasons to conclude that the dynamics of students' information competence formation are directly dependent on their ability to work with facts in a proper way, grasping necessary details, considering different approaches to professional problem, dealing with controversial issues, interpreting the information adequately, using and expressing the acquired knowledge appropriately.*

**Keywords:** *Student, education, university, language learning, technology, teaching, development, information competence, critical thinking, professional-oriented education.*

---

<sup>1</sup>Institute of International Relations, History and Oriental Studies, Kazan Federal University, Russia, [ramilh64@mail.ru](mailto:ramilh64@mail.ru)

<sup>2</sup>Institute of International Relations, History and Oriental Studies, Kazan Federal University, Russia, [i-nalimova84@mail.ru](mailto:i-nalimova84@mail.ru)

<sup>3</sup>Institute of International Relations, History and Oriental Studies, Kazan Federal University, Russia, [sosnovskaya.golnar@gmail.com](mailto:sosnovskaya.golnar@gmail.com)

## 1. Introduction

### *1.1. Importance of the problem*

The improvement of the professional education system is a priority of educational policy today. A set of key competences in various areas is a result of the activity of a higher educational institution. Among these competences the information competence plays one of the leading roles. The formation of this is realized through systematic training. The bulk of information in the modern world is presented in the English language. So we speak about English as a medium in the information competence formation of future specialists. University graduates must be able to work with the acquired information – analyze and think critically, sort the important information and skip unnecessary secondary data, use and express information correctly.

Today we are right to speak about media education as a necessity of the modern society. According to European Union publications, media education is interpreted as education intended to develop media competence, which is believed to be critical and display thoughtful attitude to media. The purpose of this is to educate responsible people who are able to communicate their thoughts and ideas on the basis of the acquired information. Media education teaches students to interpret and create statements, and choose the most appropriate communication media. Media education gives people the opportunity to realize their right to freedom of self-expression. In this sense, media education prepares students for the democratic society (Council of Europe, 2000).

### *1.2. Status of the problem*

The major problems of educational theory and practice in this field appear unsatisfactory development of conceptual ideas and issues of information competence connected with media education.

Many researchers in the field of media education refer to Masterman (1985), who set a number of reasons for the priority of media education in the modern world. The problem of media education is analyzed in the works of Gerbner (1995), who treats it as a means of communication freedom and diversity, critical understanding of media as a new approach to liberal education. Fedorov (2001) studies the problem of media education as the process of personality development with the help of mass media. It includes training of creative and communication skills, critical thinking, analysis and evaluation of media texts, as well as acquiring self-expression skills with the help of media technologies.

The position of Konovalova (2004) is close to it. She assumes that media education leads to interaction between a person and the information society, including axiological, technological and creative components. The questions of personality information culture are discussed in the works of Inyakin and Gorsky (2004), as well as Gendina (2005). Some researches (Valeev, Valeeva and Sirazeeva, 2015; Kondrateva *et. al.*, 2015; Kondrateva, Galiullina and Madyakina, 2015; Vasin *et al.*,

2017; Sazhin and Saraikin, 2016; Meskhi *et al.*, 2016; Sosnovskaya and Nalimova, 2016; Gorina, 2016; Guskova *et al.*, 2016; Vovchenko *et al.*, 2017) consider the information competence as inseparable part of the communicative approach.

### ***1.3. Hypothesis of the research***

Analysis of theoretical works and personal practice showed that the development of students' information competence through professional-oriented video materials is achieved, if the following pedagogical conditions are realized in the process of education: student's understanding of the importance of information in the modern world; acquiring the ability to work with information critically; applying the information obtained in the process of foreign language training in their professional development.

## **2. Materials and methods**

### ***2.1. Tasks of the research***

In the course of the experiment the following tasks were solved: 1) to define information competence, its components and structure; 2) to consider the English language potential for the development of students' information competence; 3) to work out the technology and examine its efficiency in the context of teaching through professional-oriented video materials.

### ***2.2. Theoretical and empirical methods***

To examine the hypothesis a set of various methods was used:

- theoretical methods – literature review, study of innovative pedagogical technologies, synthesis and analysis;
- empirical methods – observation, pedagogical experiment, questionnaires, tests, interviews, study of the results of students' learning and extracurricular activities.

### ***2.3. Basis and stages of the research***

Institute of international relations, history and oriental studies, Alexander Butlerov institute of chemistry and Institute of fundamental medicine and biology in Kazan federal university were the basis for the research. There were three stages of the research:

At the first stage the experimental platform was organized on the basis of Institute of international relations, history and oriental studies, Alexander Butlerov institute of chemistry and Institute of fundamental medicine and biology. Educational programs and lesson plans were worked out and implemented for students' professional-oriented teaching.

At the second stage theoretical basis of the English language potential for the development of students' information competence was considered. Experimental work was held for

students' information competence development on the basis of professional-oriented video materials in the context of foreign language teaching.

At the third stage new technology was worked out and approved. The results of pedagogical experiment were analyzed. Formulation of conclusions was carried out.

#### **2.4. Evaluation criteria**

The following criteria were taken into account to evaluate students' information competence development on the basis of professional-oriented video materials in the process of foreign language teaching (ACRL, 2000):

1. ability to determine the extent of information needed;
2. ability to access the needed information effectively and efficiently;
3. ability to evaluate information and its sources critically;
4. ability to incorporate selected information into one's knowledge base;
5. ability to use information effectively to accomplish a specific purpose;
6. ability to understand the economic, legal, and social issues surrounding;
7. use of information, and access and use information ethically and legally.

#### **2.5. Description of the experiment**

Theoretical stage of the research definition of information competence, its components and structure was analyzed. It provided three levels of the development of students' information competence: beginning, proficient and advanced.

The first level – beginning level. Students can formulate the tasks of their work. But they lack any strategy to search information. Students can't judge the information properly and it's difficult for them to select necessary and important facts and omit unnecessary ones.

The second level – proficient level. Students can formulate purposes of their work clearly. They can find the necessary sources of information, evaluate its relevance, accuracy and efficiency. Undergraduates can select only necessary data and exclude unimportant facts. Students realize the role of free access to information and its expression of it in the modern society.

The third level – advanced level. Students can analyze the results of their information search; evaluate the importance of different sources of information and various opinions in them. Students can integrate information from different sources; make accurate conclusions and express the information to other listeners.

On the basis of evaluation criteria mentioned above and levels of information competence, examination took place in groups of first-year students of the Institute of fundamental medicine and biology (specialty – medicine) – control group and Alexander Butlerov institute of chemistry – experimental group. Experimental part of the research was carried out in accordance with the education plan in the process of the English language teaching.

### **3. Results**

#### ***3.1. The English language potential for the development of students' information competence***

In the process of the English language teaching a questionnaire system was worked out and implemented. It helped to find out some problems of the development of students' information competence. The results of the questionnaire helped to formulate the following preliminary conclusions: most non-linguistic students believe that they don't master information competence; it's difficult for them to choose and select important facts and secondary information. Greater part of students expressed the desire to study the foreign language; the reason for it was that the bulk of information in the modern world is provided in English. The students were interested in acquiring the ability to think critically, respect other people's opinions and express their own ideas properly. The undergraduates really believed that the foreign language could help them obtain profound knowledge in their professional field – beginning with professional terminology (theory) up to some practical laboratory experiments.

#### ***3.2. The course and results of the experiment***

For the experiment two groups of students were organized: 1 experimental academic group consisting of 15 students, and 1 control academic group consisting of 16 students of Kazan federal university. Summary and analysis of observation results was constantly carried out. Intermediate check-points of the development of students' information competence were conducted for clarification of the experiment. It allowed us to make adjustments in the course of experimental work and to define some prospective for the formation of students' information competence.

In the course of practical part of the experiment, accuracy of our hypothesis was tested.

Observation of the educational process, its document's analysis, questionnaires, tests, personal experience as a teacher of foreign languages provided the study and generalization of the development of students' information competence.

So, method of observation was directed to the study of the level of student's critical thinking development. The following skills and abilities were demonstrated by students:

- to understand that all video materials are just a part of the world, they don't give appropriate and thorough picture of the reality;
- to check whether the video material is reliable;
- to select appropriate and useful information from the video;
- to assess the information critically;
- to interpret the material individually and create their own point of view;
- apply the knowledge obtained from the video in their professional sphere – chemistry and medicine and use it for their further research.

The final diagnostics based on the criteria and methods considered above showed a profound positive dynamic (Tables 1, 2).

**Table 1:** Comparison of the results of mastering the information competence and changing the level of its formation of students, based on professional-oriented video materials in the context of English language teaching (in %).

Group	Stages	Level 1 (beginning)	Level 2 (proficient)	Level 3 (advanced)
Experimental	By the start of the experiment	62.3	26.5	6.8
	By the end of the experiment	17.2	38.3	41.4
Control	By the start of the experiment	66.4	23.5	9.7
	By the end of the experiment	62.7	23.5	14.3

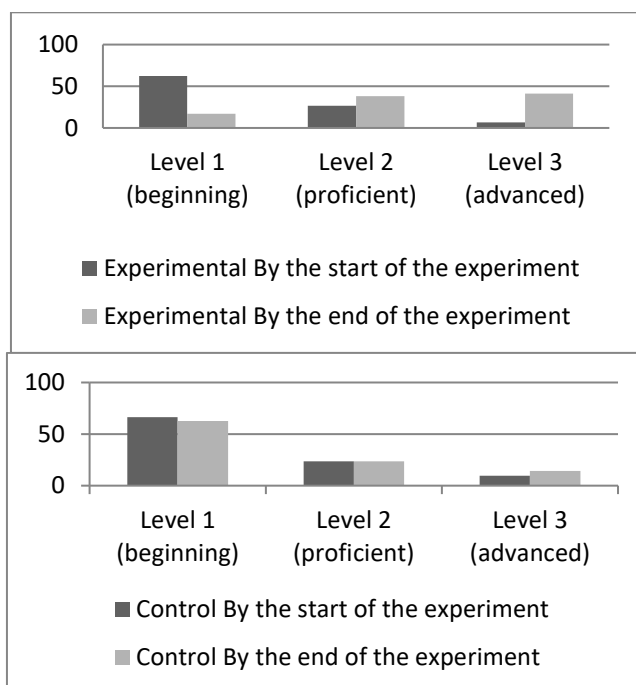
**Table 2:** The results of studying the information competence skills at the times of beginning and end of the experiment in the experimental group (EG) and the control group (CG).

Indexes of the students' information skills competence development							
Groups		ability to determine the extent of information needed	ability to access the needed information effectively and efficiently	ability to evaluate information and its sources critically	ability to incorporate selected information into one's knowledge base	ability to use information effectively to accomplish a specific purpose	ability to understand the economic, legal, and social issues surrounding the use of information, and access and use information ethically and legally
EG	Average value by the start of the experiment	1.60	1.67	1.3	1.57	1.68	1.5
	Average value by the end of the experiment	2.30	2.18	2.2	2.54	2.53	2.18
CG	Average value by the start of the experiment	1.50	1.36	1.3	1.67	1.60	1.4

Average value by the end of the experiment	1.55	1.49	1.43	1.83	1.74	1.65
--	------	------	------	------	------	------

The results of changing the level of formation of students' information competence are represented graphically (Figure 1):

**Figure 1:** *The results of changing the level of formation of students' information competence.*



Thus, the results of the experiment revealed positive dynamics in the development of students' information competence on the basis of professional-oriented video materials, in the context of foreign language teaching in the experimental group and proved the efficiency of the suggested methodology.

#### 4. Discussions

The main precondition that contributed to the development of students' information competence is the increasing role of a foreign language, its influence on critical thinking formation of young people and their ability to navigate in the information flow; professional orientation for further specialists.

Comparison of levels of the development of students' information competence in both academic groups was carried out in the experiment. The research revealed a significant growth of the considered parameters with the experimental group of students compared to the control group of students. Most students of the experimental group

demonstrated a high level of the development of the information competence. Early accurate correction and enhancement of the applied methods, tools and techniques was provided by the analysis of the process of the development of students' information competence. Comparison of the students' information competence levels in the experimental and control groups showed that the proposed motivational model of professional training of students in the study of a foreign language is effective.

## **5. Conclusions**

The results of the performed research give reasons to conclude that there is close interrelation of the level of students' information competence with professional-oriented foreign language training. In the development of this competence, critical thinking and communicative skills become of primary importance. The indicators of the dynamics of students' information competence formation are directly dependent on their ability to work with facts in a proper way, grasping necessary details, considering different approaches to professional problem, dealing with controversial issues, interpreting the information adequately, using and expressing the acquired knowledge appropriately.

## **6. Acknowledgements**

The work is performed according to the Russian Government Program of Competitive Growth of Kazan Federal University.

## **References:**

- ACRL. 2000. Information literacy competence standards for Higher education. Chicago, IL: Association of College and Research Libraries.
- Council of Europe. 2000. Recommendation. Media Education. Washington, DC: Council of Europe.
- Fedorov, A.V. 2001. Media education: history, theory and methodology: monograph. Rostov-na-Donu: CVVR.
- Gendina, N.I. 2005. Information literacy or information culture: alternative or unity (results of Russian researchers). *Schoollibrary*, 3, 18-19.
- Gerbner, G. 1995. Educators, Activists Organize to Promote Media Literacy in U.S. *The New Citizen*, 2 (2).
- Gorina, P.A. 2016. Issues and Prospectives of the Educational Service Market Modernization. *European Research Studies Journal*, 19(3) Part B, 227-238.
- Guskova, D.N., Vdovin, M.S., Krakovskaya, N.I., Slushkina, Yu.Yu. 2016. The Quality of Education as a Primary Concern of the Sustainable Development. *European Research Studies Journal*, 19(3) Part B, 239-257.
- Inyakin, Yu.S. and Gorsky, V.A. 2004. From the information culture to the culture of a personality. *Furthereducation*, 10, 6-10.
- Kondrateva, I.G., Galiullina, E. and Madyakina, N. 2015. Level and criteria of students' foreign-language communicative competence. *Mediterranean Journal of Social Sciences*, 6(3), 301-305.



- Kondrateva, I.G., Madyakina, N.Y., Sigal, N.G. and Valeev, A.A. 2016. The development of the student as a person of culture in the context of multicultural education in non-language high school by means of a foreign language. *International Electronic Journal of Mathematics Education*, 1, 57-69.
- Konovalova, N.A. 2004. Media culture development of students of teacher training institute. PhD thesis. Vologda.
- Masterman, L. 1985. *Teaching the media*. London: Comedia Publishing Group.
- Meskh, C.B., Izotov, A.M., Knyazeva, S.Y. and Simonyan, V.T. 2016. Formation of the System of Management of Supporting University on the Basis of Strengthening of Communication Component. *European Research Studies Journal*, 19(2), 64-70.
- Sazhin, V.Y., Saraikin, V.Y. 2016. Social Expectations and Satisfaction with Professional Activity of Pedagogical Personnel of Research University (evidence from the State University of Mordovia). *European Research Studies Journal*, 19(3) Part B, 258-272.
- Sosnovskaya, G.I. and Nalimova, I.S. 2016. Innovations in the system of higher education in Russia. *Journal of Organizational Culture, Communications and Conflict*, 20 (Special Issue), 51-55.
- Valeev, A.A., Valeeva, L.A. and Sirazeeva, A.F. 2015. University Students' Intercultural Competence Development in Foreign Language Teaching by Means of Axiological Approach. *Review of European Studies*, 7(4), 178-185.
- Vasin, M.S., Gamidullaeva, A.L., Rostovskaya, K.T. 2017. The Challenge of Social Innovation: Approaches and Key Mechanisms of Development. *European Research Studies Journal*, 20(2B), 25-45.
- Vovchenko, G.N., Albekov, U.A., Romanova, F.T., Epifanova, V.T. 2017. Study of Factor Which Facilitate Increase of Effectiveness of University Education. *International Journal of Educational Management*, 31(1), 12-20.